APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,870	04/16/2001	Mark Vange	CIRC012	5579

			EXAMINER
25235	7590	08/16/2004	LIN, WEN TAI

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ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/835,870	VANGE ET AL.
	Examiner.	Art Unit	
	Wen-Tai Lin	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 April 2001 and 26 July 2002_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-25_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-25_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _16 April 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _7/26/02_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-25 are presented for examination.

2.

Claims 4-12, 14-19 and 21 are objected to because the following terms lack antecedent

basis:

In claim 4,   "the redirector servers";

In claim 5,   "the at least one front-end server";

In claims 6-7,   "the one front-end";

In claim 7,   "the front-ends";

In claim 8,   "the public domain name system";

In claim 14,   "the DNS request";

In claim 17,   "the public domain name system";

In claim 17,   "the public domain name service";

In claim 19,   "the DNS request"; and

In claim 21,   "the requested network resource".

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-4, 6-7, 13-16, 18-22 and 25 are rejected under 35 U.S.C. 102(e)(b) as

being anticipated by SKENE et al.[U.S. PGPub 20010049741].

5.   As to claim 1, SKENE teaches the invention as claimed including: a system for

serving web pages to a requesting software application [e.g., a browser] comprising

[Abstract; Fig.1]:

a web site [e.g., 108, Fig.1];

a plurality of front-end servers [e.g., 134, 136, Fig.1], wherein a unique network

address is assigned to each front-end server [Abstract: lines 6-12];

a first channel configured to support request and response communication

between the software application and the web site [i.e., the client (112) of Fig.1 can

communicate to a local ISP over the first channel];

a plurality of second channels configured to support communication between

each of the front-end servers and the web site [i.e., the second channels are

established over the Internet]; and

a redirector server [i.e., the EDN] operable to select one front-end server from

the plurality of front-end servers and generate a response referring the requesting

software application to the selected front-end server [Abstract: lines 4-25; paragraphs

47-50].

6.   As to claim 2, SKENE further teaches that the web site is located in a first

address domain and the plurality of front-end servers are located within a second

address domain [e.g., according to Fig.1, 108 (i.e, the website) and 126 are located at

different address domain, while front-end servers 134 and 136 are located within the

same address domain].

7.   As to claim 3, SKENE teaches that the system further comprises mechanisms

within the web site for redirecting a request received from the software application on

the first channel to the redirector server [paragraph 46].

8.   As to claim 4, SKENE teaches that the system further comprising:

        mechanisms within at least some of the front-end servers for implementing a

portion of the web site, wherein the redirector servers [i.e, the primary and secondary

EDNS] <selects | select> amongst the plurality of front-end servers based upon a

relative ability of the front-end servers to implement the web site without reference to

the first address domain [paragraphs 47-48; note that both the EDNS servers and the

local DNS has the capability of resolving domain names for IP addresses].

9.   As to claims 6-7, SKENE further teaches that the redirector server determines

a quality factor for the plurality of second channels and selects the one front-end at least

partially based upon the relative quality factors of the plurality of second channels,

        wherein the redirector server determines a quality factor for the communication

channel for at least one front-end and the requesting software application and selects

the one front-end at least partially based upon the relative quality factors of the

channels between the front-ends and the requesting software application [Abstract,

lines 15-20; paragraphs 24 and 97].

10.   As to claim 13, SKENE further teaches that the redirector server generates a

response referring the requesting software application to a secure port of the selected

front-end server [paragraph 27].

11.   As to claims 14-16, 18-22 and 25, since the features of these claims can also be

found in claims 1-4, 6-7 and 13, they are rejected for the same reasons set forth in the

rejection of claims 1-4, 6-7 and 20 above.

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

        (a) A patent may not be obtained though the invention is not identically disclosed or described as
set forth in section 102 of this title, if the differences between the subject matter sought to be patented
and the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

13.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over SKENE

et al.(hereafter "SKENE")[U.S. PGPub 20010049741], as applied to claims 1-4, 6-7, 13-

16, 18-22 and 25 above, further in view of Official Notice.

14.   As to claim 5, SKENE further teaches that the first communication channel

comprises an Internet standard communication channel. SKENE does not specifically

teach that the second channel comprises an enhanced communication channel linking

the at least one front-end server with the web site.

        However, Official Notice is taken that it is well known to establish enhanced

communication between two network nodes by way of ATM switches or tunneling

through the Internet via virtual tunneling technique.

        It would have been obvious to one of ordinary skill in the art to have established

enhanced communication between SKENE's ISP web site and the front-end servers

because SKENE's web site functions as an ISP and the front-end servers are located in

a data center, which are very traffic-intensive.

15.   Claims 8-12, 17 and 23-24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over SKENE et al.(hereafter "SKENE")[U.S. PGPub 20010049741], as

applied to claims 1-7, 13-16, 18-22 and 25 above.

16.   As to claim 8, SKENE further teaches that the redirector server comprises a

multi-tiered set of redirector servers including:

a global redirector [e.g., 142, Fig.1] which is registered with the public domain

name system [e.g., 104, Fig.1]as a domain name server for the domain name of the

web site [paragraph 46]; and

a plurality of regional redirectors [e.g., 124, 128, Fig.1] , wherein each regional

redirector is registered with the global redirector as a domain name server for a

particular topographical region [paragraphs 47-48; note that the secondary EDNS are

located at different geographical locations].

SKENE does not specifically teach that the system also includes a plurality of

network redirectors, wherein each network redirector is associated with a subset of

front-ends and is registered with each of the regional redirectors as a domain name

server for the associated subset of front-ends.

However, the hierarchical structure of DNS servers is well known in the art. It is

obvious that SKENE's redirector servers (i.e., the EDNS), which is illustrated as having

two layers, may be extended to have multiple levels of hierarchical structure because

such an expansion is a natural approach when the number of redirector servers grows

and by doing so it would facilitate the search in the EDNS tree and subtrees.

17.   As to claims 9-10, SKENE further teaches that the global redirector selects

amongst the regional redirectors and network redirectors based upon an estimated

user location indicated by the network address supplied by the requesting software

application [paragraph 24; e.g., the round-trip time involves estimation of the distance

between the user location and the EDNS location].

18.   As to claims 11-12, SKENE further teaches that the network redirectors select

amongst the plurality of front-ends at least partially based upon a calculated index

comparing the estimated quality of service that can be provided by each of the front-

ends in the subset of front-ends associated with the network redirector [paragraph 97;

note also that each geographical data centers has a subset of front-end servers

associated with the local network redirectors (e.g., the secondary EDNS)], wherein

comparison may also be based on content and/or service provided by the front-ends

[e.g., the packet rate and completion rate between image/video and text contents are

different].

19.   As to claims 17 and 23-24, since the features of these claims can also be found

in claims 1, 8, 11, 14 and 20, they are rejected for the same reasons set forth in the

rejection of claims 1, 8, 11, 14 and 20 above.

20.   A shortened statutory period for response to this action is set to expire 3 (three)

months and 0 days from the mail date of this letter. Failure to respond within the period

for response will result in ABANDONMENT of the application (see 35 U.S.C. 133,

M.P.E.P. 710.02, 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (703)305-4875. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:
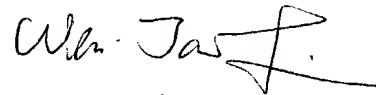
(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wen-Tai Lin

August 6, 2004

8/6/04